



## Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

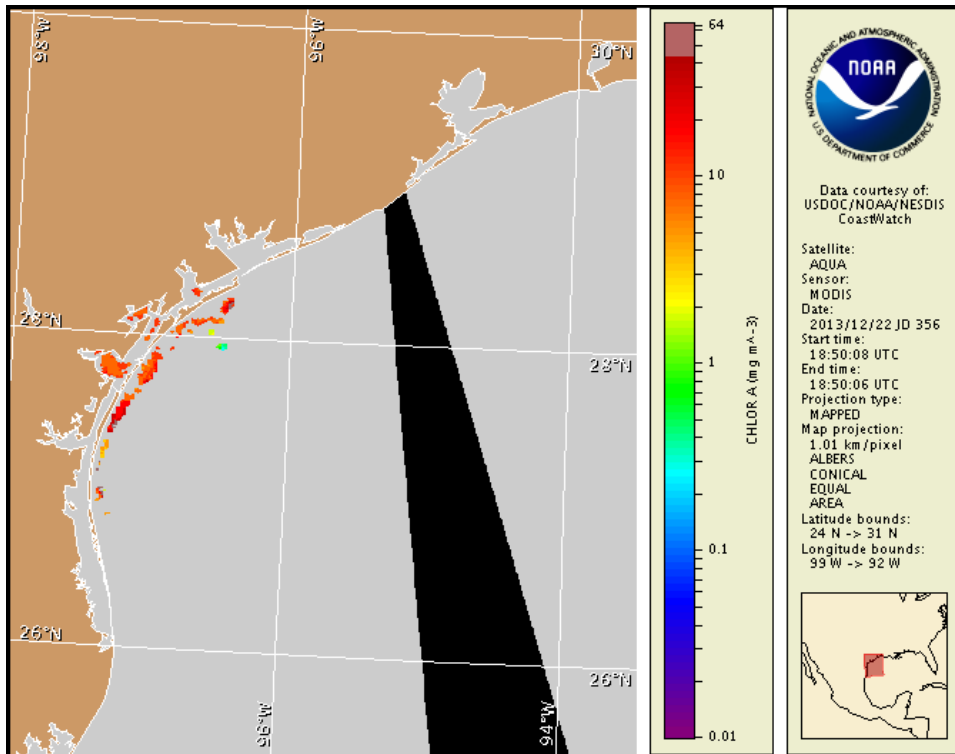
Monday, 23 December 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 16, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from December 13 to 20: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

[http://tidesandcurrents.noaa.gov/hab/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

<http://www.tpwd.state.tx.us/landwater/water/envconcerns/hab/redtide/status.phtml>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

## Conditions Report

There is currently no indication of *Karenia brevis* (commonly known as Texas red tide) along the coast of Texas. No respiratory irritation is expected Monday, December 23 through Monday, December 30. Check [http://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](http://tidesandcurrents.noaa.gov/hab/beach_conditions.html) for recent, local observations.

There are currently patches of a bloom of the algae *Aureoumbra lagunensis* in the upper Laguna Madre region. This algae species does not produce the respiratory irritation associated with the Texas red tide caused by *Karenia brevis*, but it may cause discolored water and fish kills.

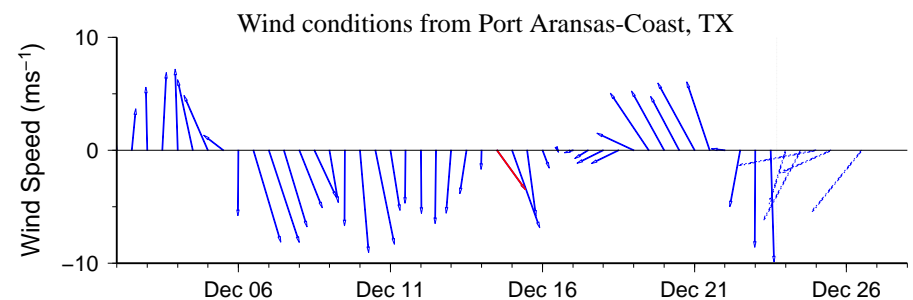
## Analysis

There is currently no indication of *Karenia brevis* along the coast of Texas. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Over the past few days, MODIS Aqua imagery has been completely obscured by clouds, limiting analysis. In MODIS imagery from 12/17-19 (not shown), elevated chlorophyll (2-10  $\mu\text{g/L}$ ) was visible stretching along- and offshore from Sabine Pass to the Rio Grande, with patches of high to very high chlorophyll (10 to >20  $\mu\text{g/L}$ ) in the Sabine Pass to Matagorda Island region. Elevated chlorophyll is most likely not indicative of the presence of *K. brevis* and is probably due to the resuspension of benthic chlorophyll and sediments along the coast.

Forecast models based on predicted near-surface currents indicate a potential maximum transport of 40km south from the Port Aransas region from December 21 to 25.

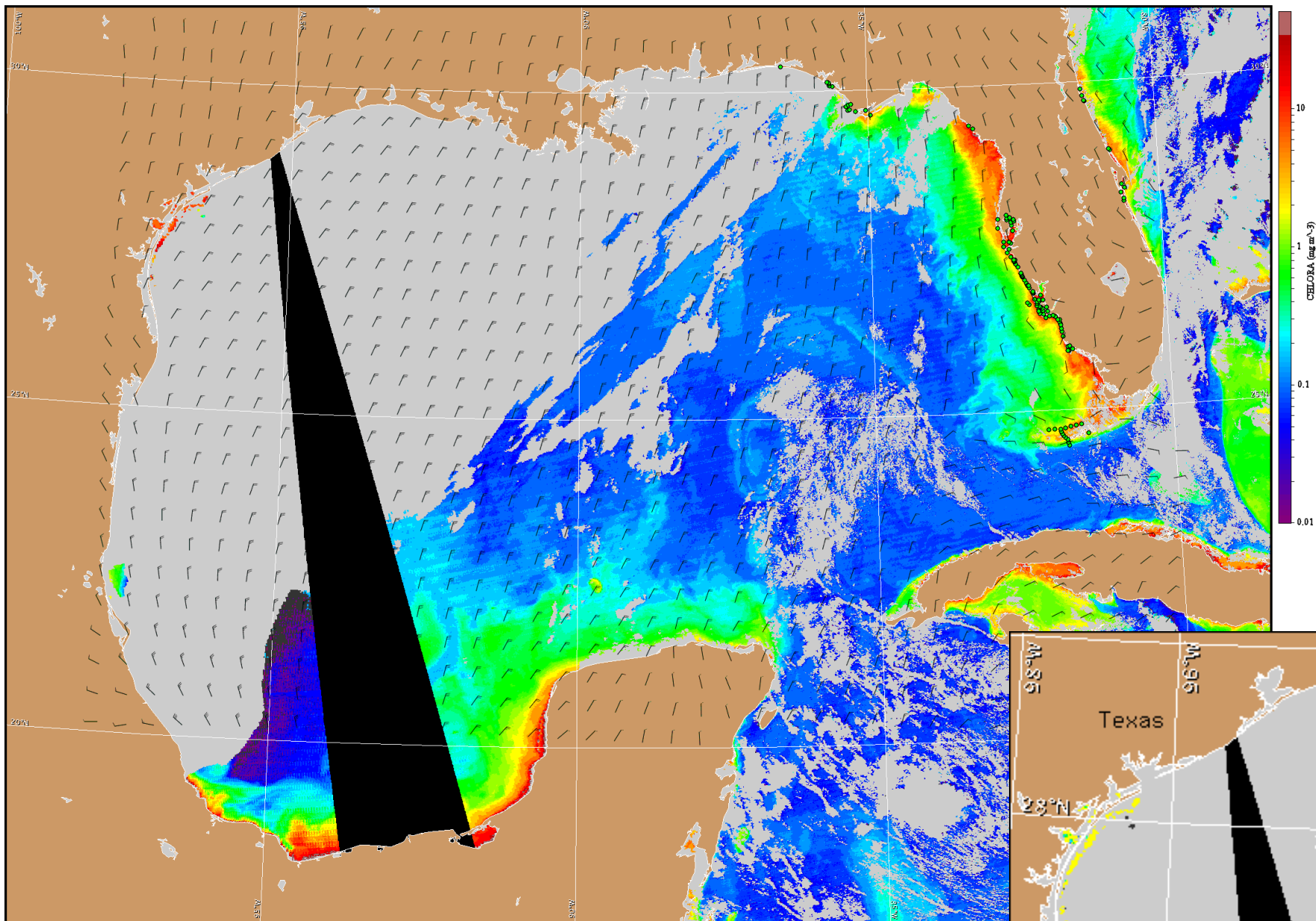
Derner, Urizar



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

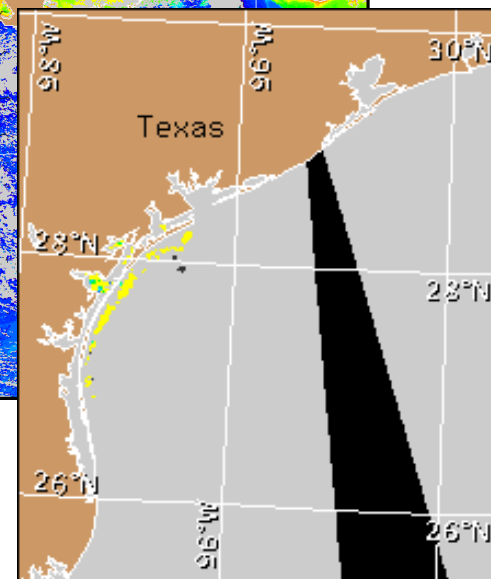
## Wind Analysis

**Port Aransas:** North winds (10-20kn, 5-10m/s) today. Northeast winds (10-15kn, 5-8m/s) Tuesday. East winds (5-15kn, 3-8m/s) Tuesday night through Wednesday. Northeast winds (10-15kn) Wednesday night through Friday.



Satellite chlorophyll image and forecast winds for December 24, 2013 12Z with points representing cell concentration sampling data from December 13 to 20: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).